

## **APPENDIX L**

### **A WETLAND BANKING MITIGATION STRATEGY FOR FAA**

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## **A WETLAND BANKING MITIGATION STRATEGY FOR FAA**

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## **PREFACE.**

This document describes the concept of wetland mitigation banking and how the FAA and airport sponsors can use this newly accepted mitigation strategy to more efficiently meet Section 404 permit requirements and environmental responsibilities. Wetland mitigation banking, although not a new ecological idea, is rapidly gaining support from all levels of government and private developers because it offers a proven, cost-effective way to compensate successfully for unavoidable wetland impacts. An example of this recent acceptance is the November 28, 1995, joint issuance of wetland banking guidance by five federal agencies that once held widely divergent views on wetland banking.

This document does not provide instructions on implementing a wetland banking strategy, since each FAA service has specific operating procedures to accomplish its respective mission. Instead, this document provides information and "ground rules" that each service should follow as it "custom designs" wetland banking instructions that meet the service's particular needs.

This document does not discuss building a wetland bank, but, instead, emphasizes and provides information on purchasing credits from an agency or person or "banker" operating such a facility. Operating a wetland bank requires extensive knowledge of complex wetland management techniques and specially trained personnel. Since the primary mission of the FAA and airport sponsors is aviation, the purchase of credits from a wetland banker frees the FAA and airport sponsors to concentrate on the complex business of managing aviation, not the complex business of managing wetlands. Anyone wishing to build a wetland bank should contact environmental specialists in the Office of Airports (202-267-5869) or the regional Army Corps of Engineers (COE) office for information.

## **I. WHAT IS WETLAND MITIGATION BANKING?**

Wetland mitigation banking provides a way to mitigate unavoidable wetland impacts before those impacts occur. Purchasing credits from a bank does not give the purchaser title to wetlands tracts that comprise a bank. Rather, the purchase is simply a payment to the wetland banker for wetland mitigation services that the bank provides.

To establish a wetland bank, the banker owning and/or managing the bank can restore, enhance, or create wetlands within a watershed or region. Implementing one of these measures or a combination of them is necessary to replace the wetland functions lost due to constructing a project within a wetland. In rare instances, preserving existing, high quality wetlands is an acceptable banking plan, but this is rarely the case because it does not truly meet the President's "no net loss" policy for wetlands. Once a bank is established and the COE has approved the bank's use, the banker is allowed to sell

credits from the bank to 404 permittees (see section II). The sale of credits from a bank signifies that the bank is capable of:

- replacing wetland functions in a watershed where unavoidable development of a wetland occurs; or
- providing wetland functions that are necessary to achieve a designated wetland management plan in the affected watershed.

## **II. WHY WOULD THE FAA OR AIRPORT SPONSOR WANT TO USE WETLAND MITIGATION BANKING?**

Section 404 of the Clean Water Act requires any one seeking authority to dredge and/or fill a wetland (404 permittee) to obtain a Section 404 permit before conducting those activities. One of the steps in the 404 permit application process requires the permit applicant to show that the proposed action includes ways to minimize unavoidable wetland impacts. This is where wetland banking plays a role.

If the COE issues a 404 permit authorizing dredge and/or fill activities in a wetland, that permit will probably contain requirements compelling the permittee to implement a plan to reduce the project's unavoidable wetland impacts. Because wetlands are ecologically complex and dynamic, the development of a wetland mitigation plan capable of replicating or replacing lost functions is often the most difficult and time consuming step of the 404 permit process. For most aviation-related projects built in wetlands, the FAA program office or the airport sponsor, as the permittee, is responsible for complying with permit required mitigation measures. Wetland banking will help FAA program offices and airport sponsors to satisfy 404 permit conditions in a cost-effective and efficient manner.

Wetland banking will enable the FAA to achieve the President's regulatory streamlining efforts and to achieve the Administration's long-term goal of increasing the quality of the Nation's wetlands. In addition, wetland mitigation banking has the following potential benefits:

- Banking can increase the quality of the Nation's wetlands.
- Banking is part of DOT's strategy to take a pro-active approach in addressing environmental issues and improving its working relationships with federal, state, local, and private agencies responsible for protecting wetlands.
- Banking provides FAA program offices and airport sponsors with a strategy for satisfying resource agency demands and mitigating wildlife and wetland impacts, while reducing wildlife and bird hazards to aviation.

- Because banking enhances the probability that FAA or an airport sponsor will obtain Section 404 permits in a more timely manner, the FAA or airport sponsor would be better able to meet tight construction deadlines more often and to complete essential projects more quickly.
- The purchase of credits from a wetland bank absolves the FAA or a project sponsor of the responsibility for undertaking, monitoring, and maintaining a complex, often difficult, wetland mitigation plan. As a result, the FAA and the airport sponsor can focus primarily on aviation needs, not on managing a wetland.
- Since the price of credits from a particular bank are known, banking can greatly enhance the ability of FAA program offices or airport sponsors to estimate the financial costs of mitigating unavoidable project-related wetland impacts.

### **III. IS WETLAND MITIGATION BANKING NEW TO THE FAA?**

Yes, but it isn't new to land developers, who have used wetland banks for the past 10 to 15 years. What is new is the acceptance of wetland banking by state governments and federal agencies. These parties now realize that wetland banking offers far greater ecological benefits than many of the on-site strategies commonly used today to mitigate wetland impacts. Examples of this new way of thinking are:

- The development of regulations and guidelines governing wetland banking by the federal government and the states of California, Florida, Maryland, Minnesota, and Oregon.
- The commitment of The Urban Land Institute, an organization of federal and state agencies, private land developers, and environmental groups, to provide administrative support, expertise, and a forum that allows interested parties to discuss openly and constructively their respective wetland mitigation banking concerns and problems.
- The Administration's commitment to wetland banking by convening a federal inter-agency task force that developed mutually acceptable banking guidelines.
- The Federal Highway Administration's (FHWA) program to encourage the use of wetland banks for roadway projects and its issuance of banking guidelines.
- FHWA's financial participation in the establishment of wetland mitigation banks for highway projects throughout the USA.
- The purchase of thousands of wetland acres in Florida by aviation departments to mitigate project-related wetland impacts.

- The State of Florida's acceptance of the Walker Ranch Bank to show that a privately financed bank can be used to mitigate successfully unavoidable impacts to thousands of acres of Florida wetlands.

#### **IV. BANKING SOUNDS LIKE A GOOD IDEA.**

In response to the President's support for wetland banking, the COE, the National Resources Conservation Service (formerly the Soil Conservation Service), EPA, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service have embraced wetland banking and have issued final guidelines (*Federal Register*, Vol. 60, No. 228, November 28, 1995). California, Florida, Minnesota, and other states have recognized the value of banking and actively promote it.

To protect wetlands, Executive Order 11990 and various regulations require 404 permit applicants to ensure that federal agencies complete the sequencing procedure (item **VII**). This safeguard should suffice to ensure that the selected wetland site is truly the only practicable alternative that would meet a proposed project's specifications, purpose, and need. In addition, the inter-agency wetland mitigation banking guidelines require the COE and other federal resource agencies to oversee the permit process to ensure that sequencing occurs and to ensure that the banks successfully mitigate wetland impacts.

#### **V. ARE FAA PROGRAMS OR AIRPORT SPONSORS REQUIRED TO USE WETLAND MITIGATION BANKING FOR ALL ACTIONS AFFECTING WETLANDS?**

No. Banking is strictly a voluntary way to satisfy wetland mitigation requirements. The FAA and airport sponsors may continue to engage in more traditional wetland mitigation approaches. Different mitigation strategies may be pursued for different programs or projects. Appropriate wetland banks may not always be available. In summary, each FAA program office or airport sponsor has the option of using or not using wetland banking for each project under its purview.

If the 404 permit applicant chooses to use wetland mitigation banking, he/she may consider two options:

- Under option one, the 404 permit applicant may propose to build a wetland bank within the same watershed as the proposed project and use credits from that bank to mitigate unavoidable wetland impacts resulting from proposed and future actions. The COE must approve the use of the banked credits as mitigation for wetland functions or values lost due to each particular project. In this situation, the permittee is responsible for wetland success.

**Note:** *FAA offices and airport sponsors are less likely to choose option one. The complex, dynamic nature of wetlands requires specialists in wetland management.*

*The FAA and sponsors normally don't possess this expertise, so wetland banking option Two (below) would be the more likely choice.*

- Under option two, the 404 permit applicant can agree to purchase a specific number of credits from a bank owned by another party, provided the bank is in the same watershed as the proposed project and the permitting agency approves such a measure. Here, the banker is responsible for wetland success.

*Here are two examples of the available wetland mitigation options:*

An airport development project:

An airport sponsor proposing a new runway knows that constructing this facility would require filling 50 acres of wetland and that a taxiway proposed for construction 2 years later would require the filling of 10 additional wetland acres. To mitigate these impacts, the sponsor can select one of the following options and present it to the COE for approval:

- mitigate wetland impacts by traditional replacement methods that are consistent with FAA safety concerns (i.e., new wetlands should not be established in areas where they could create hazards to aviation);
- establish a 60-acre bank offsite before beginning construction of either project; or
- buy 60 credits from an acceptable, offsite wetland bank that is owned by a wetland banker who meets the criteria in item **VIII**.

**NOTE:** *1:1 impact:compensation ratios in the above examples are sometimes, but not always, acceptable.*

Siting a FAA facility:

The division office planning to site a radar at a preferred location knows that construction specifications would require the filling of 2.2 acres of wetlands for foundations to support the radar's superstructure and pilings to support a 0.5-mile long access road. To mitigate these impacts, the program manager could select one of the options discussed above to offset the 2.2-acre loss.

**VI. WHO IS RESPONSIBLE FOR MAINTAINING A WETLAND MITIGATION BANK?**

When a 404 permittee such as an FAA program office or airport sponsor purchases credits from a bank meeting the criteria in section **VIII**, the banker operating that bank is solely responsible for maintaining the bank, ensuring that it is fully-functional and



that it meets its intended purposes. Those purposes are clearly stated in a Memorandum of Understanding between the banker and the COE. If the COE authorizes the 404 permittee to use a designated bank, the purchase of credits from that bank fulfills the permittee's wetland mitigation obligations. The permittee has no further wetland mitigation responsibilities.

## **VII. WHAT IS SEQUENCING?**

Sequencing is a federally-required, analytical procedure that all 404 permit applicants must complete as part of the 404 permit application process. This process follows a similar process required by the regulations implementing the National Environmental Policy Act (see Council on Environmental Quality regulations at 40 CFR section 1502.2(f)). Before using banking or any other measure to mitigate wetland impacts, the 404 permit applicant **must** complete the sequencing procedures described below.

**1. *Evaluate practicable alternatives.*** When proposing an action that would affect wetlands, section 2 of Executive Order 11990 and paragraph 5 of DOT's wetland order (5660.1A) require the appropriate FAA program office to demonstrate that there are no practicable alternatives that avoid the wetland. For DOT purposes, a practicable alternative is an alternative that is feasible when safety, transportation objectives, design, engineering, environment, and economics are considered. If a practicable alternative exists, the Executive Order and the DOT order require the FAA decision maker to select it. DOT's wetland order states that additional project expenses to mitigate wetland impacts or to implement an alternative do not make the mitigation or alternative impractical, since such expenses are normally considered necessary to meet national wetland policy objectives.

**2. *Minimize unavoidable adverse impacts.*** The aviation safety or aeronautical design requirements of many facilities often do not allow the responsible FAA program office or airport sponsor to build a needed facility outside a wetland. For example, to meet location and distance specifications necessary for some radars to perform their aeronautical function properly, the radars must be built at specific locations, some of which may be in wetlands. When no practicable alternative outside a wetland exists because of radars' performance requirements, the responsible FAA program office must demonstrate that the radars have been designed to minimize wetland impacts to the greatest extent practicable. An example of a design consideration that would minimize unavoidable wetland impacts is to place radar supports on pilings, instead of excavating and filling the wetland to accommodate a foundation for the supports.

**3. *Compensate wetland impacts that occur.*** After modifying the design to minimize wetland impacts, the FAA program office or airport sponsor must then compensate for any remaining adverse wetland impacts that occur due to constructing, operating, and/or maintaining the proposed facility. At this point, wetland banking is a mitigation option.

### **VIII. IF AN FAA SERVICE OR AIRPORT SPONSOR CHOOSES TO USE A WETLAND MITIGATION BANK, HOW DOES IT DECIDE IF A PARTICULAR BANK IS ACCEPTABLE FOR FAA PURPOSES?**

To meet the provisions of this strategy, the FAA program office or airport sponsor must complete the following steps before purchasing credits from a bank.

**1. Ensure that the bank does not pose a threat to aviation.** Wetlands and wetland banks provide excellent habitats for birds and wildlife hazardous to aviation. Although it is ecologically desirable to restore or enhance affected wildlife habitat at or near the project site to maintain ecological functions in a watershed, aircraft accident investigations have shown that hazardous wildlife attracted to wetland habitats near airports sometimes collide with aircraft causing costly damage to aircraft or injury or death to aircraft occupants. Therefore, to minimize wetland-related risks to aviation safety, FAA program offices and airport sponsors are strongly encouraged not to establish a bank or purchase credits from banks that are located within:

- 5,000 feet of a runway that serves piston-powered aircraft; or
- 10,000 feet of a runway that serves turbine-powered aircraft.

**NOTE:** *These distances are based on a study completed by the Office of Airports' Airport Safety and Operations Division (AAS-300) that assessed aircraft approach and takeoff profiles and bird flight behavior .*

FAA program offices and airport sponsors may consider using a wetland bank not meeting these distance criteria only when the bank provides special ecological functions such as:

- maintaining habitat essential to federally-listed endangered or threatened species; or
- maintaining unique wetland functions (e.g., aquifer recharge, flood control, filtration).

When these special ecological functions exist, the FAA program office or airport sponsor should consult AAS-300 at (202) 267-3389. AAS can provide recommendations for a wildlife hazard management plan to protect aviation safety.

**2. Consult the appropriate wetland resource agencies.** A 404 permit applicant must consult with the COE, the U.S. Fish and Wildlife Service, (the National Marine Fisheries Service when marine mammals or anadromous fish species are involved), the EPA, and the state agency having jurisdiction over the affected wetland. Consultation should focus on the agencies' respective concerns for wetland values and functions that the proposed project would affect and any applicable watershed or ecosystem

conservation plans. Agencies should state if they will accept wetland banking as appropriate mitigation; however, as the ultimate 404 authority, the COE is responsible for authorizing the use of a particular bank and determining the number of credits required.

**3. Select only COE-approved wetland banks.** For permitting purposes, the COE will not allow a permittee to use a wetland bank that does not meet the success criteria stated in the Memorandum of Understanding (MOU) between the COE and the banker that establishes the wetland bank. If the 404 permittee chooses to buy credits available from a bank owned by another agency or a private entity, the responsible FAA program office must have written proof that the COE has approved the bank. This provision ensures that permittees will be dealing with a reputable wetland banker who has met federal wetland mitigation guidelines.

In most cases, the COE will base success on a wetland bank's ability to provide those wetland functions that resource agencies have determined are necessary to protect a particular ecological system or watershed. Examples of such functions are floodwater retention, sediment control, providing fishery or wildlife nursery areas, removing toxic substances, or aquifer recharge. If the permittee will purchase credits from a banker, the banker should provide written assurances that the wetland mitigation bank will be self-sustaining within 3 to 5 years, the period during which most wetlands become self-sustaining.

**NOTE:** *For projects in Michigan and New Jersey, consult with the state wetland permitting agency. The COE and EPA have authorized these states to administer the Section 404 permitting process for wetland actions within respective state boundaries.*

**4. Ensure that the wetland banker has posted an appropriate environmental performance bond.** When purchasing credits from a bank meeting the criteria discussed in the above items, the FAA program office or airport sponsor must also ensure that the banker has posted an environmental performance bond equal to 100% of the cost needed to build or establish a bank that meets the objectives stated in the MOU. This bond ensures that sufficient money is available for the wetland bank to meet the success criteria in item 3., if the banker goes out of business or declares bankruptcy. The banker should provide written proof of bonding to the FAA or airport sponsor.

**5. Exercise fiduciary responsibilities.** As a federal agency entrusted with allocating or using federal funds, the FAA program office must be financially responsible when mitigating wetland impacts or providing money to do so. Although wetland impacts must be properly mitigated, the program office must ensure that it does not overpay for credits purchased from a bank. FAA project offices or airport sponsors should negotiate with the permitting and resource agencies to ensure that the number of credits purchased fairly reflects unavoidable project-related wetland impacts. They should also negotiate to secure a fair price for those credits.

## **IX. HOW TO DETERMINE THE NUMBER OF CREDITS THAT MUST BE PURCHASED.**

Determining the number of credits that must be purchased is done on a case-by-case basis. This should be a point of negotiation among the 404 permitting agency, other resource agencies, and the 404 permittee. Experience shows that the number of credits purchased should be based on the functions lost or diminished due to project construction, the functions that the bank provides, and/or the role that surrounding upland areas play in increasing the bank's overall ecological functions. Examples of compensation : impact ratios (usually expressed in acres) are:

- 4:1 when credits are sold to create a buffer between a wetland and other uses;
- 3:1 when credits are sold to protect uplands essential to wetland survival;
- 2:1 when credits are sold in a bank being established; or
- 1:1 when credits are sold in a functioning bank;

**NOTE:** *Actual negotiations may result in different ratios!! The above ratios are based on information from workshops and discussions with wetland bankers and wetland bank customers. They are presented only as generic guidelines.*

## **X. HOW WILL THE FAA OR AN AIRPORT SPONSOR PURCHASE CREDITS FROM A WETLAND MITIGATION BANK?**

When the FAA program office or airport sponsor purchases credits from a bank, it will do so via a legally binding purchasing contract. Contract signatories should include the 404 permitting agency (usually the COE), the appropriate resource agencies, the wetland banker, the responsible FAA program office and, when appropriate, the airport sponsor. The contract should contain the following contingencies to protect FAA funding and aviation safety.

**1. Protection against wetland bank failure.** This contingency is necessary to protect the FAA from spending additional funds on wetland mitigation after it has provided funds to purchase the permit-required number of bank credits. This contingency verifies that if a bank failure occurs, the FAA program office or the airport sponsor is not accountable for any future wetland mitigation requirements that are needed to satisfy the applicable permit. The purchasing instrument should contain the following statements:

- the purchase of a specified number of credits from the named bank completely satisfies the permittee's wetland mitigation responsibilities; and
- in the event of a bank failure or bankruptcy, the permittee is not responsible for any future financial responsibilities or other liabilities needed to mitigate wetland impacts that result from a 404 permit-authorized action.

**2. Protection from wildlife hazards.** Written verification that the bank is not within the 5,000 or 10,000-foot criteria discussed earlier (see section **VIII**) shows that the bank providing the credits should not pose hazardous conditions to aviation.

**NOTE:** *In situations where a wetland fulfills unique functions, such as serving as recharge areas for water supply aquifers or as habitat for federally-listed endangered or threatened species, the above distance criteria may not be applicable. In such cases, contact AAS-300 for assistance.*

## **XI. WHAT HAPPENS TO THE BANK WHEN ALL OF THE BANK'S CREDITS ARE SOLD?**

Once the COE determines that a bank is self-sustaining, and the banker has sold all of its available credits, the banker has at least three options to ensure the wetland exists in perpetuity:

- retain ownership of the wetland bank and continue to manage it;
- transfer ownership of the wetland bank to a state or a Native American tribe, if either party desires to take possession of the bank to enhance its wetland sources; or
- transfer the wetland bank to an environmental group whose primary mission is to protect wetlands and/or wildlife habitat.

Organizations having expertise in wetland management, such as state wetland or wildlife agencies or The Nature Conservancy, often seek title to banks, since their primary missions are to protect valuable wetland functions and habitats.

**A NOTE REGARDING AIP-FUNDED CREDIT PURCHASES.** *When the FAA approves an airport development project that causes wetland impacts and requires the sponsor to mitigate those impacts, the airport sponsor may recover the costs of establishing a wetland bank or purchasing credits from a wetland bank. AIP funds can be used to reimburse the sponsor for the cost of building only that portion of its wetland bank that is used to mitigate impacts resulting from a specific, FAA-approved action. The cost of building the entire wetland bank is not AIP reimbursable, unless other FAA-approved airport developments use the remainder of the bank to mitigate wetland impacts. AIP funds may also be used to reimburse the sponsor for purchasing a specified number of credits from a bank owned by another party to mitigate project-specific wetland impacts resulting from FAA-approved airport actions.*

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